

1 What is claimed is:

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3 1. A multiplex transmission apparatus for
4 receiving a first multiplexed signal comprising a first
5 payload having a plurality of main signals multiplexed
6 therein and a first overhead including a plurality of
7 first maintenance information associated with
8 administration and maintenance operations, performing
9 termination processing for said first maintenance
10 information and transmission processing for the main
11 signals in said first payload, thereafter converting said
12 first multiplexed signal into a second multiplexed signal
13 comprising a second payload having multiplexed therein
14 said main signals which have been processed for
15 transmission, and a second overhead bytes including a
16 plurality of second maintenance information associated
17 with the administration and maintenance operations, said
18 second maintenance information to be output to a far end
19 communication apparatus, and transmitting said second
20 multiplexed signal; comprising:

21 an extraction circuit for extracting predetermined
22 maintenance information from said first maintenance
23 information;

1 a cross-connecting circuit for cross-connecting
2 information extracted by said extraction circuit; and
3
4 insertion circuit means for inserting an output of
5 said crossconnecting circuit into a predetermined
6 location in said second overhead bytes,
7 wherein said predetermined maintenance information
8 in said first multiplexed signal is transferred to said
9 second multiplexed signal.